



ADVANCED BATTERY MATERIAL MANUFACTURING POWDER HANDLING SOLUTIONS





POWDERS, HANDLED.

Matcon is a leader in powder handling systems, offering scalable and precise engineering solutions built on over 40 years of experience.

Expertise In Battery Material Processing

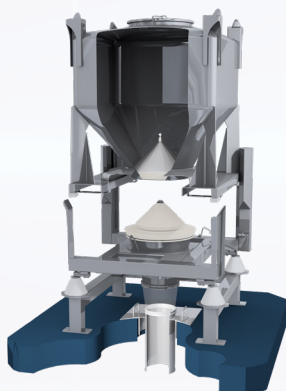
Through partnerships with top battery cell and material producers, innovative start-ups and esteemed research institutions, Matcon has established itself as a reliable solution provider. By streamlining scale-up processes and ensuring consistent product quality in every product batch, Matcon empowers your innovation in battery production.

PRODUCT RANGE

Our system solutions are designed using Cone Valve Technology IBCs for transferring and processing powders. We understand that each company has their own unique needs of their system, so each solution is designed using these product building blocks.



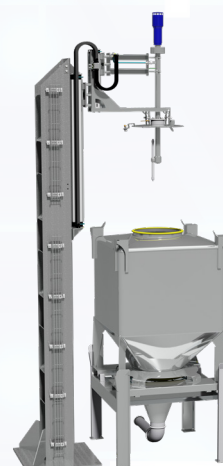
IBCs



DISCHARGE



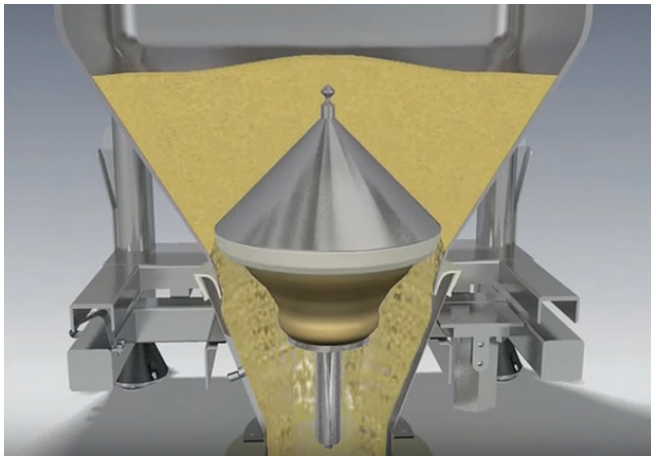
BLENDING



CLEANING

THE MATCON CONE VALVE IBC DIFFERENCE

To overcome all powder handling issues the Cone Valve within each IBC can be configured with adjustable lift heights & vibration.

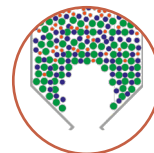
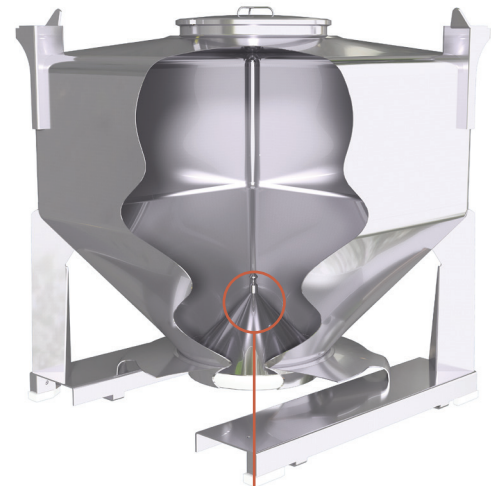


The Cone Valve technology is designed to encourage cohesive materials to flow, whilst maintaining the homogeneous blend of the powders.

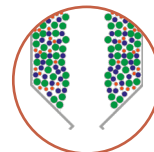
Free-flowing powders can be controlled without the need for additional feeders, and can discharge to a specified weight, by use of the variable lift height of the Cone Valve.

Blended material can be fed to the downstream process with minimised risk of segregation, as the Cone Valve promotes mass-flow of the powder. Flow can be shut off during discharge without any damage, as the Cone Valve moves with the flow of material.

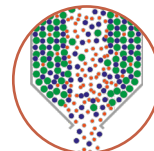
Dust-free handling enables the safe handling of potentially harmful powders.



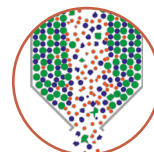
BRIDGING



RAT-HOLING



SEGREGATION



DEGRADATION

AVOID THESE
POWDER HANDLING ISSUES

TAILORED FOR THE WORLD OF BATTERIES



Stainless Steel IBCs

Capacities ranging from 500L to 3500L.

Available in grades 316, 304, or a lower carbon variant upon request.

Designed to withstand pressures ranging from -25 to +50 millibars as standard.*

IBC transport options by fork truck, chain conveyor, or AGV.



High Temperature Processing IBCs

Ranging from 500L to 1000L, these IBCs can withstand operating temperatures up to 200° Celsius.*

This design offers significant energy savings, thereby providing a more sustainable choice for processing hot powders without compromising safety or performance.

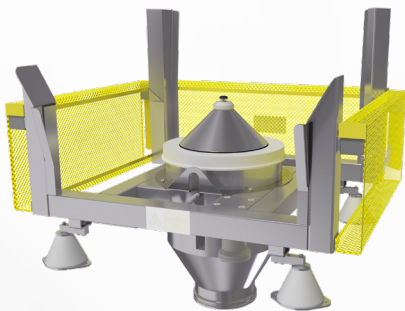


Advanced High-Capacity Heavy-Duty IBCs

Features an air capacity of 3700L, designed for large-scale industrial applications.

Engineered to endure pressures of up to 100 millibars.*

Crafted to fulfil the intensive requirements of large-scale gigafactory production.



Discharge Stations

From Vari-Stroke to High-Temperature stations, achieve precise control over your powder discharge.

Fully automated to ensure quick and accurate powder material transfer without sacrificing safety.

Features a positive shut-off mechanism to improve accuracy and control throughout the discharge process.



Pilot Scale Blender

Offers a versatile capacity range of 50 to 200L.

It incorporates features like high shear blending, which are pivotal for rigorous experimentation and scaling processes in powder fibrillation.

Ensures a smooth and efficient transition from pilot to full-scale production.







Full-Scale Blenders

Offer a capacity range of 500-3000, these blenders are designed for consistent and efficient operation, minimising downtime while maximising throughput.

Similar to their pilot scale counterparts, they feature high shear blending capabilities promoting powder fibrillation.

* For other ranges, please contact us.

Comparison Table

			
	Pipe	Big Bag	Matcon IBC
Prevent cross contamination			
Containment			
Easy to clean			
Operator safety			
Residual losses			
Traceability			
Control of powder			
Batch flexibility			
Automation			

Matcon Features that empower your manufacturing process:

- Contained, sealed transfer of powders
- Cone Valve technology – controls powder feed
- GIW/LIW dosing capabilities direct from the IBC
- Specialist consultancy - benefit from dedicated process consultancy for cost-effective solutions
- Complies with ATEX, UL, Class-Div Areas, CSA, CE and UN DOT standards





Reliable

Contained

Efficient



THE POWDER HANDLING EXPERTS

www.matconibc.com

MATCON, Bramley Drive, Vale Park West, Evesham, Worcestershire, WR11 1JH, UK

Tel: +44 (0) 1386 769 000 Fax: +44 (0) 870 191 1116



Material Processing Technologies